DOCUMENT RESUME

ED 142 651 UD 017 166

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TITLE College Bound Program, 1975-76.
INSTITUTION New York City Board of Education, Brooklyn, N.Y. Office of Educational Evaluation.
PUB DATE 76
NOTE 55p.; New York City Board of Education Function No. 09-69609 ; Best copy available

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS Bilingual Education; Bilingualism; *Bilingual Students; *High School Students; Individualized Instruction; *Language Skills; *Mathematics; *Reading Skills; Secondary Education; Social Isolation
IDENTIFIERS *College Bound Program; Elementary Secondary Education Act Title I; *New York (New York)

ABSTRACT

The College Bound Program was designed to help educationally disadvantaged and linguistically isolated 9th to 12th grade pupils improve their skills in reading and mathematics. Students were exposed to 40 minutes of daily instruction, five days per week, for a full year in both subject areas. Each day's exposure was remedial in orientation and served to supplement regular or tax-levy teaching. Instruction for all pupils was individualized, utilizing either standardized achievement or criterion-referenced instruments for diagnosis and evaluation. Instructional prescriptions to correct deficits were either commercial or teacher-prepared. Major findings of the program evaluation were: (1) students in grades 9 through 12 showed highly significant gains in both reading and mathematics, and (2) the bilingual students who were administered the criterion-referenced tests failed to realize the criterion level of mastery of at least five instructional objectives in both reading and mathematics. Among the factors that may have been contributed to the positive results of the program may be the use of individualized instruction as the chief teaching method, and the use of a diagnostic-prescriptive approach. (Author/AM)

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ED142651

EVALUATION REPORT

Function No. 09-89609

COLLEGE BOUND PROGRAM

1975-1976

BEST COPY AVAILABLE

Paul Kahn

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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An evaluation of a New York City School District educational project funded under Title I of the Elementary and Secondary Education Act of 1965 (PL 89-10) performed for the Board of Education of the City of New York for the period from September 1, 1975 to June 30, 1976.

UD017166

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COLLEGE BOUND PROGRAM

1975-1976

Chapter I: THE PROGRAM

The College Bound Program was conducted in each of 22 New York City high schools from September 1, 1975 to June 30, 1976. The program was designed to service 8830 disadvantaged students who were deemed eligible for Title I funds and 320 who were linguistically isolated. Staff was to include one mathematics supervisor, three reading teacher-trainers, 179 teachers, 64 counselors, 22 secretaries, 44 family workers and 159 paraprofessionals. Student entrants into the program were to be selected from among those whose spring 1975 reading scores on the Stanford Achievement Test were one year or more below grade level.

As its principal objective, the project was designed to improve the reading and mathematics skills of the target population. Other goals were to enhance language development of the lingusitically isolated, to facilitate transition of pupils from junior high school to senior high school and from senior high school to college, to increase the success of of participants within regular classrooms and to raise the potential of the students for doing college work successfully.

In order to accomplish these objectives, the participating youngsters were to attend supplementary classes in reading and mathematics five days per week. Linguistically isolated pupils were to be provided bilingual courses in the same subject areas. All program classes emphasized individual, diagnostic-prescrip-

tive approaches, instruction being geared to overcoming detected pupil deficits. Class registers were limited to 20 students.

Helping teachers individualize instruction were educational assistants, some recruited from among graduates of the College Bound Program. Concurrently to assist disadvantaged students in overcoming problems associated with their individual development which might have a bearing on achool success, guidance counselors were assigned a pupil ratio of 150-200 and family workers were available to insure effective home-school cooperation. Also enhancing the effort were field trips which served to broaden experiential learning and to raise motivational levels.

Chapter II: EVALUATIVE PROCEDURES

This section specifies the evaluation objectives, the data collection procedures, the instrumentation, the methods of data treatment and the population sample. There were five evaluation objectives specified in the original design stated August, 1975. These objectives follow:

1. "To determine if, as a result of participation in the program, there is a statistically significant improvement in the pupils' reading achievement level.
2. "To determine if, as a result of participation in the program, there is a statistically significant improvement in pupils' mathematics achievement score.
3. "To determine if 70 percent of the linguistically isolated

pupils master at least five instructional objectives in both reading and mathematics which they did not master prior to instruction in the program.

4. "To determine, as a result of participation in the program, the extent to which pupils demonstrate mastery of instructional objectives.

5. "To determine the extent to which the program, as actually carried out, coincided with the program as described in the Project Proposal.

Data Collection Procedures

All students were pretested on the appropriate instruments in October, 1975; those absent at that time were pretested on an individual basis in the same month. During the month of January, 1976, pupils who were dropping out, transferring or graduating at the close of the fall semester were given posttests. Entrants new to the program were administered pretests in February, 1976. All students remaining in the program throughout the spring semester were posttested in May, 1976. Variations in the treatment periods are reflected in the data analysis.

The OEE Evaluator made 22 site visits to schools conducting the College Bound Program and a full day was spent observing staff training workshops in action. The broad aim of these visits was two-fold: 1) to assess implementation of the program as written; and 2) to determine whether the recommendations of previous evaluators were carried out. Over the course of these visits, more than 50 classrooms were observed for a

full period and productive, comprehensive interviews were conducted with teachers, coordinators, guidance counselors, educational assistants, family assistants, participating students and high school administrators.

The Instrumentation

In order to obtain data for evaluation objective #1, the California Achievement Test in reading (CAT) was administered as pretest and posttest to all participants in grades 9 and 10. The Comprehensive Test of Basic Skills (CTBS) was th reading instrument of choice in grades 11 and 12. For evaluation objective #2, the California Achievement Test in mathematics (CMT) was employed in all grades as both pretest and posttest.

With regard to the bilingual component of the College Bound Program, criterion-referenced tests were utilized. In reading, the Houghton Mifflin Individual Pupil Monitoring System, Level 5, was selected for all linguistically isolated pupils. Mathematics data was obtained by means of the SRA Criterion-Referenced Measurement Program (Mastery: an evaluation tool).

It should be noted that these tests were also used as diagnostic instruments by program teachers.

Methods of Data Treatment

The data for reading and mathematics of the non-linguistically isolated students were analyzed by means of the "real (treatment) posttest vs anticipated (without treatment) posttest" method as specified in the evaluation design, using

a correlated t ratio with historical regression. Stated in the design is a level of .05 for statistically significant improvement in both subject areas. Normative data for all grades were given as grade equivalents, except for grades 11 and 12 reading which were specified as percentile scores. Because, as noted in the SED District Evaluator's Handbook Of Selected Evaluation Procedures for Categorically Aided Programs Serving Disadvantaged Learners, "for a student to maintain his standing at a percentile rank relative to a norm he must gain in achievement," the pretest and anticipated means in reading were considered to be precisely the same.

Criterion-referenced data for the linguistically isolated were analyzed and presented in both tabular and narrative form, showing mastery or non-mastery of each instructional objective at initial and final testing. Tables have been presented according to both SED and publisher's classification systems.

All data were analyzed by grade level and data utilizing grade equivalents, percentile scores and criterion-referenced determinations were grouped into full year and part year treatment groups.

The Sample

All of the participants in each component comprised the population for this study; however, complete data were not available for all subjects. Table 1 below portrays the total number of students actually served by each component of the program (as opposed to those in the proposal) as well as the test sample on hand. The Data Loss Form in Appendix C gives a complete ac-

counting for each subject lost by program component and grade level.

TABLE 1: THE POPULATION AND TEST SAMPLE BY COMPONENT

COMPONENT	POPULATION	TEST SAMPLE	%
Reading	8156	7837	96
Mathematics	5622	5303	94
Bilingual (Rdg)	260	231	88
Bilingual (Math)	260	198	76

Chapter III: THE FINDINGS

This chapter reports on the results germaine to each evaluation objective, reviews the degree of implementation of the written proposal, comments on implementation of the recommendations made in the previous year and discusses the findings emanating from observations and interviews conducted by the OEE Evaluator.

Evaluation objectives 1 and 2 were designed to investigate the effectiveness of the reading and mathematics components of the non-linguistically isolated by comparing the real posttest and the anticipated posttest scores on various subtests of the California Achievement Test and of the Comprehensive Test of Basic Skills. Table 2 below summarizes the results for these two objectives using grade equivalent scores and percentile rankings.

An analysis of Table 2 shows that reading comprehension improved from 1.1 to 2.2 years on the average, that mathematics

computational abilities grew from 0.7 to 1.9 years and that skills in applying mathematics concepts progressed from .06 to 1.7 years. In 11th and 12th grade reading, percentile ranks rose as much as 13.4 percent on the average. All groups but one (29 students in 12th grade mathematics computation) demonstrated statistically significant means gains, the vast majority at or beyond the .01 level of significance.

TABLE 2. PRE AND POSTTEST RESULTS IN READING AND MATHEMATICS (Grade Equivalent Means)

	Reading [1]		Computations		Concepts	
Grade/Treatment	Pre	Post	Pre	Post	Pre	Post
9 - Full Year	7.2	9.4*	7.3	9.2*	7.0	8.6*
Fall Term	6.3	7.4*	6.7	7.7*	6.6	7.6*
Spring "	6.7	8.1*	7.2	8.5*	7.2	8.2*
10- Full Year	8.0	9.8*	7.1	9.7*	7.8	9.2*
Fall Term	7.1	8.2*	7.5	8.5*	7.5	8.7*
Spring "	7.6	9.0*	7.7	9.3*	8.0	8.9*
11- Full Year	28.42	36.96*	8.8	10.7*	8.6	10.3*
Fall Term	24.62	28.13*	8.4	9.6*	8.7	9.7*
Spring "	29.94	34.50**	8.5	9.8*	8.8	9.9*
12- Full Year	28.77	42.21*	8.6	10.4*	8.6	10.3*
Fall Term	32.16	40.30*	8.9	10.2*	9.3	10.6*
Spring "	-	-	8.0	8.7ns	8.4	9.0**

* Significant at or above the .01 level: ns Not Signif.
** Significant at the .05 level
1 Percentile means given for grades 11-12; Rdg. Comp. (CTBS)

Evaluation objective 3 was designed to investigate the effectiveness of the bilingual component of the program prior

and subsequent to instruction in both reading and mathematics. Table 3 shows the results for reading in percents; Table 4, for mathematics. Pupil numbers are found in the Appendix.

Analysis of Table 3 demonstrates that 70% of the linguistically isolated students did not master any of the 12 reading instructional objectives, according to the SED classification system, either at initial or at final testing. These results apply to grades 9, 10 and 11. However, the mean percentages of those who did master the 12 objectives rose 9% in grade 9 and 25% in grade 10.

TABLE 3. DISTRIBUTION OF PERCENTAGE MASTERY AND NON-MASTERY OF SED INSTRUCTIONAL OBJECTIVES BEFORE AND AFTER INSTRUCTION IN READING

OBJECTIVE NUMBER SED CODE	% BEFORE INSTRUCTION						% AFTER INSTRUCTION					
	Gr. 9		Gr. 10		Gr. 11		Gr. 9		Gr. 10		Gr. 11	
	P*	F*	P	F	P	F	P	F	P	F	P	F
2304	15	85	11	89	26	74	46	54	36	64	36	64
2301	20	80	4	96	42	58	42	58	45	55	61	39
2305	15	85	12	88	23	77	39	61	30	70	47	53
2306	31	69	23	77	42	58	27	73	46	54	38	62
2404	28	72	32	68	33	67	27	73	52	48	35	65
2409	25	75	35	65	55	45	27	73	43	57	46	54
2406	35	65	43	57	50	50	35	65	62	38	41	59
2408	16	84	14	86	26	74	29	71	34	66	43	57
2413	19	81	19	81	46	54	38	62	66	34	26	74
2414	30	70	21	79	46	54	25	75	55	45	29	71
2403	19	81	26	74	39	61	23	77	53	47	15	85
2412	8	92	1	99	9	91	17	83	12	88	22	78
MEAN %	22	78	20	80	36	64	31	69	45	55	37	63

* P=Pass or mastery; F=Fail or non-mastery

Analysis of Table 4 shows that, after instruction, 70% or more of the linguistically isolated mastered 5 of the 8 SED instructional objectives in mathematics in the 10th grade; 4 of the 8 in the 11th grade and 3 objectives in the 9th grade. The mean percentages of those who mastered the 8 objectives rose dramatically 35% in grade 10 and 27% in grade 11.

Since a criterion level of mastery of at least 5 instructional objectives in both reading and mathematics after instruction was set by the evaluation design, objective 3 has not not been achieved in any of the three grades by the bilingual component of the program.

TABLE 4. DISTIBUTION OF PERCENTAGE MASTERY AND NON-MASTERY OF SED INSTRUCTIONAL OBJECTIVES BEFORE AND AFTER INSTRUCTION IN MATHEMATICS

OBJECTIVE NUMBER SED CODE	% BEFORE INSTRUCTION						% AFTER INSTRUCTION					
	Gr. 9		Gr. 10		Gr. 11		Gr. 9		Gr. 10		Gr. 11	
	P*	F*	P	F	P	F	P	F	P	F	P	F
1107	85	15	86	14	88	12	87	13	100	0	100	0
1108	70	30	64	36	76	24	76	24	100	0	100	0
1109	90	10	72	28	76	24	72	28	100	0	100	0
1110	86	14	40	60	47	53	64	36	92	8	83	17
1103	13	87	24	76	11	89	39	61	75	25	63	37
1104	10	90	22	78	14	86	43	57	68	32	48	52
1111	3	97	1	99	0	100	11	89	27	73	23	77
1116	8	92	8	92	5	95	13	87	38	62	15	85
MEAN %	46	54	40	60	40	60	51	49	75	25	67	33

* P = Pass or Mastery; F = Fail or Non-Mastery

Evaluation objective 4 was designed to investigate the extent of mastery of instructional objectives. Among the items to be explored were distribution of pupils 1) not receiving sufficient instruction to receive the posttest; 2) demonstrating mastery of objectives both prior to and as a result of instruction; and 3) achieving various levels of mastery of objectives. Also to be explored was the distribution of the number of objectives mastered as a result of instruction. Tables 5-10 serve to examine the data related to these goals.

It should be emphasized at this juncture that pertinent

TABLE 5. DISTRIBUTION OF PUPIL NON-MASTERY ON PRETEST AND NO POSTTEST FOLLOW-UP IN READING AND MATHEMATICS

NUMBER INS. OBJ. FAILED	READING						MATHEMATICS					
	Gr. 9		Gr.10		Gr.11		Gr. 9		Gr.10		Gr.11	
	#	%	#	%	#	%	#	%	#	%	#	%
22-23	0	0	0	0	0	0						
20-21	0	0	0	0	0	0						
18-19	1	1	1	1	0	0						
16-17	3	3	5	7	2	3						
14-15	2	2	8	11	4	6	0	0	0	0	0	0
12-13	0	0	2	3	1	2	0	0	0	0	0	0
10-11	0	0	0	0	0	0	3	3	1	2	1	3
8-9	0	0	0	0	0	0	8	7	5	10	7	21
6-7	0	0	0	0	0	0	9	8	7	13	12	35
4-5	0	0	0	0	0	0	2	2	3	6	4	12
2-3	0	0	0	0	0	0	0	0	0	0	0	0
0-1	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	6	6	16	22	7	11	22	20	16	31	24	72

OEE guidelines state that if there are any categories in the CRT instrument for which there are no corresponding SED instructional objective codes, "comment as to the success of the omitted categories should be reported upon in the Findings section of the narrative." Because the Houghton-Mifflin Reading System comprises 23 compared with 12 SED categories, 11 additional reading objectives are reported upon here and because the SRA Mathematics Mastery System treats 15 compared with 8 SED categories, seven more are added in this section.

Table 5 presents the distribution of students demonstrating non-mastery of objectives prior to instruction and not receiving sufficient instruction to receive the posttest. In reading, pupils receiving no posttest follow-up fell entirely into the group that failed to master from 12-19 instructional objectives and consisted of 29 youngsters or 13% of the full bilingual component. Those who received least follow-up activity were 10th graders who failed to master 14-15 objectives. In mathematics, students receiving no posttest follow-up fell completely in the group that failed to master from 4-11 instructional objectives and consisted of 62 participants or 31% of the full mathematics segment of the bilingual component.

Table 6 shows the distribution of student mastery of instructional objectives prior to instruction. As concerns reading, between 13-28 percent of the pupils had mastered more than 50% of the 23 instructional objectives of the publisher's code. Regarding mathematics, between 19-46 percent had mastered more than 50% of the 15 objectives of the publisher's code. Highest percent mastery occurred in the 10th grade in both

subject areas.

TABLE 6. DISTRIBUTION OF PUPIL MASTERY OF INSTRUCTIONAL OBJECTIVES PRIOR TO INSTRUCTION IN READING AND MATHEMATICS

PERCENTAGE MASTERY OF INS. OBJ.	READING						MATHEMATICS					
	Gr. 9		Gr.10		Gr.11		Gr. 9		Gr.10		Gr.11	
	#	%	#	%	#	%	#	%	#	%	#	%
76-100	3	3	0	0	0	0	10	9	3	6	4	12
51-75	13	13	8	11	17	27	21	19	24	46	10	29
26-50	23	24	20	28	26	41	49	44	15	29	17	50
0-25	58	60	43	61	20	32	32	28	10	19	3	9
TOTALS	97	100	71	100	63	100	112	100	52	100	34	100

Table 7 shows the distribution of pupil mastery after instruction of each instructional objective, utilizing the publisher's reading code. In all, only one objective, Verb Tense, was mastered by at least 70% of the bilingual participants in grades 9 through 11. Mastery of five instructional objectives, as called for in the evaluation design, was attain- by 37% of the students in grade 9; 55% in grade 10 and 43% in grade 11.

Table 8 concerns mathematics mastery after instruction and reveals that, had the publisher's code been applied in evaluation objective 3, 70% or more of the pupil population in grade 9 would have mastered 4 of the 15 objectives (one more than with the SED code); 11 of the 15 in the 10th grade (six more); and 8 in grade 11 (four more than the SED code). Mastered in the 9th grade was division of fractions; in the 10th grade, addition, multiplication and division of fractions together with

addition, multiplication and division of decimals; in the 11th grade, addition, subtraction and multiplication of fractions with addition of decimals.

TABLE 7. DISTRIBUTION OF PUPIL MASTERY BY INSTRUCTIONAL OBJECTIVE IN READING AS A RESULT OF INSTRUCTION

Inst. Obj.	Grade 9		Grade 10		Grade 11	
Pub. Code	RATIO	%	RATIO	%	RATIO	%
531	38/82	46	23/63	37	17/46	37
532	33/77	43	31/68	46	22/36	61
533	32/82	39	22/62	35	23/48	48
534	18/66	27	25/54	46	14/36	39
535	30/91	33	16/62	26	11/58	19
536	18/36	50	23/29	79	9/15	60
537	19/53	36	32/47	68	7/23	30
538	21/57	37	24/52	46	13/40	33
539	19/69	27	25/48	52	15/42	35
540	20/72	28	20/46	43	13/28	46
541	22/62	35	25/40	63	13/31	42
542	19/63	30	21/48	44	12/39	31
543	24/81	30	21/61	34	20/46	43
544	30/78	38	38/57	67	9/34	26
545	17/67	25	31/56	55	10/34	29
546	18/78	23	28/52	54	6/38	16
547	18/69	26	28/60	47	10/46	22
548	18/78	24	25/61	41	6/33	18
549	23/72	32	17/61	28	10/47	21
550	16/89	18	9/70	13	13/57	23
551	16/81	20	21/69	30	10/51	20
552	26/76	34	25/61	41	12/48	25
553	17/89	19	16/66	24	7/51	14

TABLE 8. DISTRIBUTION OF PUPIL MASTERY BY INSTRUCTIONAL OBJECTIVE IN MATHEMATICS AS A RESULT OF INSTRUCTION

PUB. CODE	RATIO	%	RATIO	%	RATIO	%
W31	14/16	88	7/7	100	4/4	100
W37	33/43	77	12/12	100	8/8	100
W44	8/11	73	7/7	100	8/8	100
W55	42/65	65	25/27	93	15/18	83
F27	34/59	58	15/17	88	9/11	82
F29	35/61	57	23/29	79	13/17	76
F33	41/72	57	18/28	64	13/17	76
F 37	35/71	49	22/26	85	11/17	65
F39	44/61	72	17/20	85	9/15	60
F 41	32/51	63	9/11	82	14/17	82
F46	40/68	59	27/34	79	11/19	58
F48	36/84	43	26/37	70	14/24	58
F50	42/92	45	21/39	54	9/27	33
F55	17/105	16	16/51	31	7/30	23
F75	14/102	14	18/47	38	5/32	16

Table 9 is designed to examine the number and percentages of reading and mathematics instructional objectives mastered after instruction that were not mastered prior to instruction. Clearly revealed is the fact that, based on the publishers' codes, substantial numbers and percentages of pupils did master substantial numbers of objectives. For example in reading, 52% of the ninth graders mastered some 10-15 objectives; 50% of the tenth graders and 36% of the 11th graders did likewise. For mathematics, 10-15 objectives were mastered by 57% of the 9th grade, 87% of the 10th and 82% of the 11th.

TABLE 9. DISTRIBUTION OF THE NUMBER AND PERCENTAGE OF INSTRUCTIONAL OBJECTIVES MASTERED AFTER INSTRUCTION

NUMBER OF INS. OBJ. MASTERED	READING *						MATHEMATICS **					
	Gr. 9		Gr.10		Gr.11		Gr. 9		Gr.10		Gr.11	
	#	%	#	%	#	%	#	%	#	%	#	%
22-23	1	1	2	3	2	3						
20-21	3	3	3	4	2	5						
18-19	7	7	6	8	5	8						
16-17	5	5	4	6	7	11						
14-15	18	19	10	16	9	14	17	15	22	42	7	20
12-13	20	20	12	17	7	11	28	25	18	34	13	39
10-11	13	13	12	17	7	11	19	17	6	11	8	23
8-9	9	9	6	8	4	6	19	17	3	6	3	9
6-7	11	11	9	12	9	14	17	15	2	4	1	3
4-5	5	5	7	10	11	17	10	9	1	2	1	3
2-3	4	4	0	0	0	0	2	2	0	0	1	3
0-1	1	1	0	0	0	0	0	0	0	0	0	0

* N (Reading) 9th gr.=97; 10th gr.=71; 11th gr.=63
**N (Mathematics) 9th gr.=112; 10th gr.=52; 11th gr.=34

Table 10 pictures the percentage distribution of pupils achieving various levels of mastery of instructional objectives compared with those they attempted. In reading, 64% of the pupils in grade 9, 75% in grade 10 and 54% in grade 11 mastered 50% or more of the instructional objectives they confronted. Only 24% of all participants mastered fewer than 29% of the instructional objectives attempted. In mathematics, the percentages of success were significantly higher: 91% in grade 9; 92% in grade 10; 100% in grade 11. Only 2% mastered fewer than 29% of the objectives confronted.

TABLE 10. DISTRIBUTION OF PERCENTAGE OF PUPILS ACHIEVING VARIOUS LEVELS OF MASTERY OF INSTRUCTIONAL OBJECTIVES

PERCENTAGE MASTERY Achieved / Attempted	READING						MATHEMATICS					
	Gr. 9		Gr.10		Gr.11		Gr. 9		Gr.10		Gr.11	
	#	%	#	%	#	%	#	%	#	%	#	%
90-100%	3	3	2	3	4	6	20	18	23	44	7	21
80-89%	10	10	10	14	5	8	28	25	18	35	13	38
70-79%	11	11	15	21	10	16	25	22	3	6	8	24
60-69%	20	21	12	17	7	11	16	14	3	6	3	9
50-59%	19	19	14	20	8	13	13	12	1	2	3	9
40-49%	16	16	10	14	12	19	6	5	4	8	0	0
30-39%	11	11	3	4	11	17	2	2	0	0	0	0
20-29%	7	7	5	7	6	10	2	2	0	0	0	0
TOTALS	97	100	71	100	63	100	112	100	52	100	34	100

Evaluation objective 5 is designed to determine the extent to which the program, as actually carried out coincided with the program as described in the project proposal. This

objective was assessed by means of 23 site visits made to the field schools. Observations were made about the population being serviced, the instructional and service program and the facilities and materials employed. Interviews were also conducted with coordinators, guidance counselors, family assistants, teachers, educational assistants and students to obtain additional data reported upon in this section.

The program as implemented coincided with that described in the proposal, except for some discrepancies discussed in the narrative which follows.

Doubtless the strongest part of the project was almost universal individualization of instruction based on a diagnostic-prescriptive approach to treat revealed pupil deficits. Variation was observed or reported in the form of group teaching, optional prescriptions or materials, free reading and game days. It may be said with confidence that the significant improvement in basic skills was largely attributable to this instructional method.

Not far behind was the positive attitude widely observed with respect to the project. Teachers seemed dedicated and genuinely concerned with treating pupil weaknesses. They generally rated the program as excellent and were happy to be associated with it: its objectives were being realized; cooperation was proffered from all quarters; attention was directed to student personal and family problems and admission and retention in college was extremely high. In fact, the latter assessment is attested to by the 1975 follow-up longitudi-

nal study that showed 93.76% acceptance of CB graduates by private and public colleges while 70% of the first CB graduating class also graduated from college by June, 1975.

Students, too, evidenced positive attitudes toward the program: they liked the teachers; their attendance was high; and they preferred individualization to whole class teaching. Moreover, they appeared highly motivated, anxious to attend college, willing to work diligently on assigned tasks and a sizeable number seemed to understand the relationship of these tasks to their scores on parts of the initial test. A complaint heard in the upper grades was that there was too much repetition of skills and materials; some expressing a desire for more varied and challenging experiences. Media and manipulative materials, not often used in classrooms, appeared to hold a special fascination for them. Some of the more mature participants desired to have more input into their learning process.

Whereas selection of the target population was specified in the program as confined to those achieving below grade level, pupil-by-pupil analysis of the data disclosed that some youngsters attained the maximum score of 13.6 on the pretest. And while a ceiling of 20 pupils per class was proposed, some classes in a few schools had numbers above the limit.

The educational assistants performed well in the classroom. Some were trained as teachers; some were former College Bound graduates who stated that the program has helped them to succeed in college. They interacted quite adequately with the students and helped them meet school and personal problems.

All but one school program coordinator performed commendably. While they ordinarily received excellent cooperation from school administrators, they had little supervisory or administrative control of teacher, pupil or room assignments. As a result, there were overcrowded classes, inadequate facilities and unwilling or untrained new teachers funnelled into the program. Ineffective local control also gave rise to lack of continuity from term-to-term and from year-to-year, including loss of midyear instructional time and poor or nonexistent records (except for good pupil folders and guidance files).

Guidance counselors and family assistants were most troubled about reduction in supporting staff and increased caseloads; they questioned their ability under these conditions to do the best possible job. Overall, both categories of service personnel were viewed favorably by other staff and by the students. They, in turn, saw the College Bound Program as eminently successful.

Reading and mathematics coordinators or liaison personnel were assigned within each school where they maintained materials and frequently served as desirable peer models for other teachers. Additionally, three reading and one mathematics teacher trainer visited schools on a regular basis to oversee implementation of the program and to help teachers. Nevertheless, some teachers voiced a desire for scheduled College Bound school meetings with all staff to exchange ideas and to discuss problems. By and large, centrally-arranged workshops were

praised, a view concurred in by the OER evaluator who, together with a large force of staff, attended an outstanding one.

Lack of adequate materials and equipment was said by many to be a major constraint of the program. Reading teachers felt those they had were suitable for grades 9 and 10 but those intended for the 11th and 12th grades were neither varied enough nor on the interest and ability levels of the pupils. A number of specialists claimed they would like to try typing, speed reading, vocabulary building and reading in the content areas, expressing a desire for pertinent materials. Mathematics teachers quite often lacked more than one or two types of workbooks, making it difficult or impossible to allow students to choose freely among optional prescriptions. Although specified in the proposal, few classrooms had two calculators in view or in use. To arouse pupil interest, mathematics specialists favored introduction of computer and programed mathematics, games and puzzles coupled with media and realia.

As noted from the results relative to evaluation objectives 3 and 4, the bilingual component did not fare as well as might be expected. These disappointing outcomes, especially in reading, could well have been due to the fact that most instructors did not speak Spanish with any fluency, bilingual materials were sparce or absent, criterion-referenced records were not immediately available or improperly kept and no direct relationship could be seen between instructional objectives and instructional exercises or prescriptions by pupils and/or teachers.

Eight recommendations were advanced in the evaluation report for the 1974-1975 school year. They were:

1. that staff personnel be retained in the program for at least a full year. As mentioned above, this was not always accomplished because assignments were made at the discretion of department chairmen who were not bound by program guidelines. However, program administrators have made this recommendation known to the proper school authorities.
2. that equal content area leadership be provided. This was done in all schools, giving each content coordinator one period to perform his/her job.
3. that inservice courses and workshops be expanded for both teachers and paraprofessionals, discussing methods for utilizing paraprofessionals. In addition to the initial orientation workshop, others were conducted on January 29, 1976 and on February 26, 1976, attended by teachers and paraprofessionals. Of the January conference, one teacher reported: "This has been the most worthwhile reading conference I've ever attended." On the February workshop agenda stands the item, "Utilizing the Paraprofessional."
4. that teaching personnel vary their instructional modalities with peer-assisted instruction and elective modules. Seen by the present OEE evaluator was learning options in reading; he was not aware of significant peer tutoring in the classroom, except that individuals working in small groups frequently helped one another with their assignments.
5. that interschool visitation be increased. Unfortunately, lack of adequate funds militated against implementing this

fine recommendation.

6. that professional dialogue between regular and CB staff be enhanced. In this connection, CB staff stated that they regularly attended school departmental meetings, they helped those tax levy staff who wanted to try individualization by supplying materials and suggestions and they maintained constant communication with department colleagues.

7. that laboratories and room dividers for counselors be provided. Excellent laboratories were observed in various schools and counselors did not complain of the need for room dividers; they seemed to have all the privacy they needed.

8. that program coordinators be given more authority in selecting teachers and in implementing guidelines. As noted above, this remained a problem despite efforts made in that direction.

Chapter IV. SUMMARY OF MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The large reading and mathematics components of the College Bound Program have succeeded admirably in improving the basic skills of the target population in grades 9 through 12. Almost all test results were found to be highly significant statistically at the .01 probability level or better. Moreover, as expressed by virtually all participants interviewed and as observed by the evaluator, the diagnostic/prescriptive methodology employed was quite successful. In great measure, these positive outcomes were due to the competence and humane qualities of the project director and her staff; they have succeeded

a team that worked together harmoniously and which has produced an exemplary program.

As mentioned by the Project Director, it appears that the College Bound staff has decided to discontinue the bilingual component for the 1976-1977 school year. This is probably a wise choice in view of the findings with respect to Evaluation Objectives 2 and 3; namely, considerably less than 70% (the criterion level of acceptable performance) mastered five or more instructional objectives in both reading and mathematics, using either the SED or the publishers' codes.

Based on the major findings just summarized, there are a number of recommendations the project staff should consider. They are:

1. In view of the highly statistically significant positive achievement results in reading and mathematics, the College Bound Program should be recycled.
2. Develop a uniform and coordinated system of record keeping that encompasses pupil folders, teacher progress charts and cumulative office records. Ongoing records should identify pupil weaknesses, prescriptions completed and skills mastered in each grade. All records should be at the disposal of teachers, particularly as pupils move from class to class at midyear and at year's end. Cumulative records should remain in school when students graduate; indeed, information should be added as follow-up college studies are made.
3. Sharply focus student attention on individual and program goals or instructional objectives, possibly through Perfor-

mance-Based Instruction with criterion-referenced testing or by means of a pupil "Contract System."

4. Institute regularly-scheduled school conferences for all College Bound staff to discuss program changes, exchange ideas and resolve problems. Acceptable meeting times should be developed with building administrators and should appear in the guidelines.
5. Insist upon exercising greater control in the selection of staff, facilities and students, especially at midyear and in schools that have presented problems in the past. Consider dropping schools that refuse to cooperate.
6. Consider giving school mathematics coordinators (liaison) more supervisory and teacher-training authority, with added non-teaching time to make the job possible. In the event this recommendation is not feasible, one or more additional teacher-trainers in mathematics should be assigned.
7. Encourage greater student involvement in the selection of materials and methods most suitable for their individual learning styles. A student "cabinet" might be convened at the various schools.
8. Introduce more varied and challenging materials and teaching techniques to the upper grades. Stimulate greater interest with more realia and media in reading and mathematics.
9. Since linguistically isolated youngsters appear to achieve mastery of objectives more frequently in mathematics than in reading, consider including bilingual students in a future mathematics component together with ordinary pupils in the program.

APPENDIX A

College Bound Program 1975-76 B/E # 09-69609

Component Codes 608-15, 16 666-15, 16 Act. Code 725
609-15, 16 668-15, 16 Obj. Code 801

PROGRAM ABSTRACT

The College Bound Program was designed to help educationally disadvantaged and linguistically isolated 9th to 12th grade pupils improve their skills in reading and mathematics. Students were exposed to 40 minutes of daily instruction, five days per week, for a full year in both subject areas. Each day's exposure was remedial or corrective in orientation and served to supplement regular or tax-levy teaching. Instruction for all pupils was individualized, utilizing either standardized achievement or criterion-referenced instruments for diagnosis and evaluation. Instructional prescriptions to correct deficits were either commercial or teacher-prepared.

Major findings of the program evaluation were:

1. Students in grades 9 through 12 showed highly significant gains in both reading and mathematics. Apart from a small number of students (29) in the 12th grade on mathematics computation skills, these findings obtained for those exposed to the program for either one semester or a full year.

2. The bilingual students who were administered criterion-referenced tests failed to realize the criterion level of mastery of at least five instructional objectives in both reading and mathematics. However, they did show considerably greater mastery of instructional objectives in the two subject areas after instruction compared with their performance before instruction.

3. The program, as actually carried out, coincided well with the project proposal.

The positive results of the program may be attributed to the following factors: a) use of individualized instruction as the chief teaching method; b) use of a diagnostic-prescriptive approach to ferret out deficits and treat them adequately; c) the general high quality of the College Bound staff; d) the highly motivated and self-disciplined pupils; e) the well-integrated supportive services; and f) the fact that the youngsters related to the overall goal of college preparation, shown by the large number of participants expressing a desire to enter college.

APPENDIX B

Table 9 Historical Regression Design (6-step Formula) for reporting norm referenced achievement tests in Reading and Mathematics.

Function # 09-69609
College Bound Program, 1975-1976
MIR # 1

In the Table below, enter the requested assessment information about the tests used to evaluate the effectiveness of major project component/activities in achieving cognitive objectives. This form requires means obtained from scores in the form of grade equivalent units as processed by the 6-step formula.(see District Evaluator's Handbook of Selected Evaluation Procedures, 1974, p. 29-31) Before completing this table, read all footnotes. Attach additional sheets if necessary.

Component Code	Activity Code	Test Used 1/	Form		Level		Total N 2/	Group ID 3/	Number Tested 4/	Pretest		Predicted Posttest Mean	Actual Posttest		Obtained Value of t
			Pre	Post	Pre	Post				Date	Mean		Date	Mean	
6 08150	0 725	CAT70 Read	A	A	4	4	80	Gr. 9	79	10/75	6.26	6.48	1/76	7.35	5.87**
6 08160	0 725	CAT70 Read	A	A	5	5	62	Gr.10	60	10/75	7.11	7.34	1/76	8.17	3.87**
6 08160	0 725	CAT70 Read	O	O	4	4	63	Gr. 11	63	10/75	24.62	*24.62	1/76	28.13	2.79**
6 08160	0 725	CAT70 Read	O	O	4	4	57	Gr.12	56	10/75	32.16	*32.16	1/76	40.30	5.37**
6 09150	0 725	CMT70 Cncpt	A	A	5A	5A	120	Gr. 9	117	10/75	6.55	6.97	1/76	7.64	7.02**
6 09150	0 725	CMT70 Comp	A	A	5A	5A	120	Gr. 9	117	10/75	6.73	6.79	1/76	8.65	5.12**
6 09160	0 725	CMT70 Cncpt	A	A	5A	5A	141	Gr.10	138	10/75	7.54	7.79	1/76	8.65	7.26**
6 09160	0 725	CMT70 Comp	A	A	5A	5A	141	Gr.10	138	10/75	7.45	7.70	1/76	8.48	6.72**
6 09160	0 725	CMT70 Cncpt	A	A	5A	5A	246	Gr.11	236	10/75	8.92	8.92	1.76	9.69	5.00**

1/ Identify the test used and year of publication (MAT-58, CAT-70, etc.).
2/ Total number of participants in the activity.
3/ Identify the participants by specific grade level (e.g., grade 3, grade 5). Where several grades are combined, enter the 4th and 5th digits of the component code.
4/ Number of pupils for whom both pre and post test data are provided.

* Percentile Scores
** Significant at $p \leq .01$

Table 9 Historical Regression Design (6-step Formula) for reporting norm referenced achievement tests in Reading and Mathematics.

Function # 09-69609
College Bound Program, 1975-1976
MIR # 2

In the Table below, enter the requested assessment information about the tests used to evaluate the effectiveness of major project component/activities in achieving cognitive objectives. This form requires means obtained from scores in the form of grade equivalent units as processed by the 6-step formula.(see District Evaluator's Handbook of Selected Evaluation Procedures, 1974, p. 29-31) Before completing this table, read all footnotes. Attach additional sheets if necessary.

Component Code	Activity Code	Test Used 1/	Form		Level		Total N 2/	Group ID 3/	Number Tested 4/	Pretest		Predicted Posttest	Actual Posttest		Obtained Value of t
			Pre	Post	Pre	Post				Date	Mean	Mean	Date	Mean	
609160 0	725	CMT70 Comp	A	A	5A	6A	246	Gr.11	256	10/75	8.44	8.70	1/76	9.57	8.72 **
609160 0	725	CMT70 Cncpt	A	A	5A	6A	135	Gr.12	128	10/75	9.34	9.60	1/76	10.57	6.55 **
609160 0	725	CMT70 Comp	A	A	5A	5A	135	Gr.12	128	10/75	8.93	9.18	1/76	10.19	6.06 **
608140 0	725	CAT/C Read	A	A	4	4	491	Gr.9	404	2/76	6.68	6.95	5/76	8.11	7.62 **
608160 0	725	CAT/C Read	A	A	5	5	461	Gr.10	401	2/76	7.60	7.88	5/76	8.96	8.78 **
608160 0	725	CTBS Read	Q	Q	4	4	166	Gr.11	151	2/76	29.94	* 29.94	5/76	34.50	2.36 ***
609150 0	725	CMT70 Cncpt	A	A	5A	5A	404	Gr.9	353	2/76	7.17	7.46	5/76	8.19	4.75 **
609140 0	725	CMT70 Comp	A	A	5A	5A	404	Gr.9	353	2/76	7.18	7.47	5/76	8.46	9.79 **
609160 0	725	CMT70 Cncpt	A	A	5A	5A	386	Gr.10	331	2/76	7.96	8.25	5/76	8.93	5.64 **

1/ Identify the test used and year of publication (MAT-58, CAT-70, etc.).
2/ Total number of participants in the activity.
3/ Identify the participants by specific grade level (e.g., grade 3, grade 5). Where several grades are combined, enter the 4th and 5th digits of the component code.
4/ Number of pupils for whom both pre and post test data are provided.

* Percentile Scores
** Significant at $p \leq .01$
*** Significant at $p \leq .05$

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Table 9 Historical Regression Design (6-step Formula) for reporting norm referenced achievement tests in Reading and Mathematics.

Function # 09-69609
College Bound Program, 1975-1976
MIR # 3

In the Table below, enter the requested assessment information about the tests used to evaluate the effectiveness of major project component/activities in achieving cognitive objectives. This form requires means obtained from scores in the form of grade equivalent units as processed by the 6-step formula.(see District Evaluator's Handbook of Selected Evaluation Procedures, 1974, p. 29-31) Before completing this table, read all footnotes. Attach additional sheets if necessary.

Component Code	Activity Code	Test Used 1/	Form Pre	Form Post	Level Pre	Level Post	Total N 2/	Group ID 3/	Number Tested 4/	Pretest Date	Pretest Mean	Predicted Posttest Mean	Actual Posttest Date	Actual Posttest Mean	Obtained Value of t
6 0 9 1 6 0 0	7 2 5	CMT70 Comp	A	A	5A	5A	386	Gr.10	331	2/76	7.72	7.98	5/76	9.25	7.06 **
6 0 9 1 6 0 0	7 2 5	CMT70 Cncpt	A	A	5A	5A	147	Gr.11	123	2/76	8.76	9.03	5/76	9.88	4.17 **
6 0 9 1 6 0 0	7 2 5	CMT70 Comp	A	A	5A	5A	147	Gr.11	123	2/76	8.48	8.74	5/76	9.78	4.51 **
6 0 9 1 6 0 0	7 2 5	CMT70 Comp	A	A	5A	5A	34	G4.12	29	2/76	8.36	8.59	5/76	8.97	2.70 ***
6 0 9 1 6 0 0	7 2 5	CMT70 Comp	A	A	5A	5A	34	Gr.12	29	10/76	8.02	8.24	5/76	8.65	1.03 ns
6 0 9 1 6 0 0	7 2 5	CAT70 Read	A	A	4	4	1371	Gr. 9	1324	10/75	7.17	7.70	5/76	9.35	11.63 **
6 0 9 1 6 0 0	7 2 5	CAT70 Read	A	A	5	5	2002	Gr.10	1942	10/75	8.04	8.58	5/76	9.80	8.30 **
6 0 9 1 6 0 0	7 2 5	CTBS READ	Q	Q	4	4	1917	Gr.11	1907	10/75	28.42	* 28.42	5/76	36.96	23.77 **
6 0 9 1 6 0 0	7 2 5	CTBS Read	Q	q	4	4	1486	Gr.12	1450	10/76	28.77	* 28.77	5/76	42.21	25.40 **

1/ Identify the test used and year of publication (MAT-58, CAT-70, etc.).
2/ Total number of participants in the activity.
3/ Identify the participants by specific grade level (e.g., grade 3, grade 5). Where several grades are combined, enter the 4th and 5th digits of the component code.
4/ Number of pupils for whom both pre and post test data are provided.

* Percentile Scores
** Significant at $p \leq .01$ ns = Not Significant
*** Significant at $p \leq .05$

Table 9 Historical Regression Design (6-step Formula) for reporting norm referenced achievement tests in Reading and Mathematics.

Function # 09-69609
College Bound Program, 1975-1976
MTR # 4

In the Table below, enter the requested assessment information about the tests used to evaluate the effectiveness of major project component/activities in achieving cognitive objectives. This form requires means obtained from scores in the form of grade equivalent units as processed by the 6-step formula.(see District Evaluator's Handbook of Selected Evaluation Procedures, 1974, p. 29-31) Before completing this table, read all footnotes. Attach additional sheets if necessary.

Component Code	Activity Code	Test Used 1/	Form		Level		Total N 2/	Group ID 3/	Number Tested 4/	Pretest		Predicted Posttest Mean	Actual Posttest		Obtained Value of t
			Pre	Post	Pre	Post				Date	Mean		Date	Mean	
6 0 9 1 5 0 0	7 2 5	CMT70 Cncpt	A	A	5A	5A	1344	Gr. 9	1281	10/75	7.02	7.53	5/76	8.61	14.15**
6 0 9 1 5 0 0	7 2 5	CMT70 Comp	A	A	5A	5A	1344	Gr. 9	1281	10/75	7.26	7.79	5/76	9.19	17.14**
6 0 9 1 6 0 0	7 2 5	CMT70 Cncpt	A	A	5A	5A	1717	Gr.10	1709	10/75	7.87	8.39	5/76	9.19	13.66**
6 0 9 1 6 0 0	7 2 5	CMT70 Comp	A	A	5A	5A	1717	Gr.10	1709	10/75	7.14	7.60	5/76	9.74	21.75 **
6 0 9 1 6 0 0	7 2 5	CMT70 Comp	A	A	5A	5A	854	Gr.11	791	10/75	8.62	9.14	5/76	10.27	12.98 **
6 0 9 1 6 0 0	7 2 5	CMT70 Comp	A	A	5A	5A	854	Gr.11	791	10/75	8.78	9.31	5/76	10.67	17.97 **
6 0 9 1 6 0 0	7 2 5	CMT70 Cncpt	A	A	5A	5A	94	Gr.12	67	10/75	8.57	8.81	5/76	10.29	3.17 **
6 0 9 1 6 0 0	7 2 5	CMT70 Comp	A	A	5A	5A	94	Gr.12	67	10/75	8.56	8.80	5/76	10.40	6.08**

1/ Identify the test used and year of publication (MAT-58, CAT-70, etc.).
2/ Total number of participants in the activity.
3/ Identify the participants by specific grade level (e.g., grade 3, grade 5). Where several grades are combined, enter the 4th and 5th digits of the component code.
4/ Number of pupils for whom both pre and post test data are provided.
** Significant at $p \leq .01$

13. Criterion Referenced Test (CRT) Results.

In the table below, enter the requested information about criterion referenced test results used to evaluate the effectiveness of programs in reading and mathematics; particularly for those of less than 60 hours duration. Use the Instructional Mastery codes appended to this form for those skills which the program attempted to improve. Please provide data for each test used and each level tested. Use additional sheets if necessary.

Function # 09-69609
College Bound Program, 1975-1976
MIR # 5

Component Code Grade 9 Reading							NY Instructional Mastery Code SED				Houghton-Mifflin Publisher IPMS Objective and #	Level	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col. (2) Passing	Posttest No. of Pupils from Col. (2) Failing
6	6	6	1	5	0	0	2	3	0	4	Synonyms 531	5	15	82	38	44
6	6	6	1	5	0	0	2	3	0	1	Antonyms 532	5	20	77	33	44
6	6	6	1	5	0	0	2	3	0	5	Unknown Words 533	5	15	82	32	50
6	6	6	1	5	0	0	2	3	0	6	Multi-Meang 534	5	31	66	18	48
6	6	6	1	5	0	0	2	4	0	4	Details 539	5	28	69	19	50
6	6	6	1	5	0	0	2	4	0	9	Sequence 540	5	25	72	20	52
6	6	6	1	5	0	0	2	4	0	6	Main Ideas 541	5	35	62	22	40
6	6	6	1	5	0	0	2	4	0	8	Drawing Con. 543	5	16	81	24	57
6	6	6	1	5	0	0	2	4	1	3	Idioms 544	5	19	78	30	48
6	6	6	1	5	0	0	2	4	1	4	Similes&Met. 545	5	30	67	17	50
6	6	6	1	5	0	0	2	4	0	3	Cause & Eff. 546	5	19	78	18	60
6	6	6	1	5	0	0	2	4	1	2	Char.&Traits 550	5	8	89	16	73

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13. Criterion Referenced Test (CRT) Results.

In the table below, enter the requested information about criterion referenced test results used to evaluate the effectiveness of programs in reading and mathematics; particularly for those of less than 60 hours duration. Use the Instructional Mastery codes appended to this form for those skills which the program attempted to improve. Please provide data for each test used and each level tested. Use additional sheets if necessary.

Function # 09-69609
College Bound Program, 1975-1976
MIR # 6

Component Code Grade 10 Reading	NYSED Instructional Mastery Code	Houghton-Mifflin Publisher IPMS Objective & No.	Level	Pretest No. of Pupils		Posttest	
				Passing	Failing	No. of Pupils from Col. (2) Passing	No. of Pupils from Col. (2) Failing
				(1)	(2)		
6 6 6 1 6 0 0	2 3 0 4	Synonyms 531	5	8	63	23	40
6 6 6 1 6 0 0	2 3 0 1	Antonyms 532	5	3	68	31	37
6 6 6 1 6 0 0	2 3 0 5	Unknown Wds 533	5	9	62	22	40
6 6 6 1 6 0 0	2 3 0 6	Multi Meang 534	5	17	54	25	29
6 6 6 1 6 0 0	2 4 0 4	Details 539	5	23	48	25	23
6 6 6 1 6 0 0	2 4 0 9	Sequence 540	5	25	46	20	26
6 6 6 1 6 0 0	2 4 0 6	Main Ideas 541	5	31	40	25	15
6 6 6 1 6 0 0	2 4 0 8	Drawing Cone 543	5	10	61	21	40
6 6 6 1 6 0 0	2 4 1 3	Idioms 544	5	14	57	38	19
6 6 6 1 6 0 0	2 4 1 4	Similes&Met. 545	5	15	56	31	25
6 6 6 1 6 0 0	2 4 0 3	Cause & Eff. 546	5	19	52	28	24
6 6 6 1 6 0 0	2 4 1 2	Char.&Traits 550	5	1	70	9	61

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13. Criterion Referenced Test (CRT) Results.

In the table below, enter the requested information about criterion referenced test results used to evaluate the effectiveness of programs in reading and mathematics; particularly for those of less than 60 hours duration. Use the Instructional Mastery codes appended to this form for those skills which the program attempted to improve. Please provide data for each test used and each level tested. Use additional sheets if necessary.

Function # 09-69609
College Bound Program, 1975-1976
MIR #7

Component Code Grade 11 Reading	NYSED Instructional Mastery Code	Houghton-Mifflin Publisher IPMS Objective & No.	Level	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col. (2) Passing	Posttest No. of Pupils from Col. (2) Failing
6 6 6 1 6 0 0	2 3 0 4	Synonyms 531	5	17	46	17	29
6 6 6 1 6 0 0	2 3 0 1	Antonyms 532	5	27	36	22	14
6 6 6 1 6 0 0	2 3 0 5	Unknown Wds 533	5	15	48	23	25
6 6 6 1 6 0 0	2 3 0 6	Multi Mean. 534	5	27	36	14	22
6 6 6 1 6 0 0	2 4 0 4	Details 539	5	21	42	15	27
6 6 6 1 6 0 0	2 4 0 4	Sequence 540	5	35	28	13	15
6 6 6 1 6 0 0	2 4 0 6	Main Ideas 541	5	32	31	13	18
6 6 6 1 6 0 0	2 4 0 8	Drawing Con. 543	5	17	46	20	26
6 6 6 1 6 0 0	2 4 1 3	Idioms 544	5	29	34	9	25
6 6 6 1 6 0 0	2 4 1 4	Similes &Met. 545	5	29	34	10	24
6 6 6 1 6 0 0	2 4 0 3	Cause & Eff. 546	5	25	38	6	32
6 6 6 1 6 0 0	2 4 1 2	Char.&Traits 550	5	6	57	13	44

13. Criterion Referenced Test (CRT) Results.

In the table below, enter the requested information about criterion referenced test results used to evaluate the effectiveness of programs in reading and mathematics; particularly for those of less than 60 hours duration. Use the Instructional Mastery codes appended to this form for those skills which the program attempted to improve. Please provide data for each test used and each level tested. Use additional sheets if necessary.

Function # 09-69609
College Bound Program, 1975-1976
MIR #8

Component Code Grade 9 Mathematics	NYSED Instructional Mastery Code	SRA Publisher Objective and No.	Level	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col. (2) Passing	Posttest No. of Pupils from Col. (2) Failing
661501	110 7	Addition W31		96	16	14	2
661500	110 8	Subtract. W37		79	43	33	10
661500	110 9	Multip. W44		101	11	8	3
661500	111 0	Division W55		97	65	42	23
661500	110 3	Fractions F27, 33, 37, 39		15	97	38	59
661500	110 4	Decimals F41, 46, 48		12	100	43	57
661500	111 1	Prop. Op. F 50, 55		4	108	12	96
661500	111 6	Percent F75		10	102	14	88

13. Criterion Referenced Test (CRT) Results.

In the table below, enter the requested information about criterion referenced test results used to evaluate the effectiveness of programs in reading and mathematics; particularly for those of less than 60 hours duration. Use the Instructional Mastery codes appended to this form for those skills which the program attempted to improve. Please provide data for each test used and each level tested. Use additional sheets if necessary.

Function # 09-69609
College Bound Program, 1975-1976
MIR # 9

Component Code Grade 10 Mathematics	Instructional Mastery Code	SRA Publisher Objective and No.	Level	Pretest No. of Pupils		Posttest	
				Passing (1)	Failing (2)	No. of Pupils from Col. (2) Passing	No. of Pupils from Col. (2) Failing
6 6 8 1 6 0 0	1 1 0 7	Addition W31		45	7	7	0
6 6 8 1 6 0 0	1 1 0 8	Subtract W37		40	12	12	0
6 6 8 1 6 0 0	1 1 0 9	Multip. W44		45	7	7	0
6 6 8 1 6 0 0	1 1 1 0	Division W55		25	27	25	2
6 6 8 1 6 0 0	1 1 0 3	Fractions F27 29 33 37 39		15	37	28	9
6 6 8 1 6 0 0	1 1 0 4	Decimals F41 42 48		14	38	26	12
6 6 8 1 6 0 0	1 1 1 1	Prop.Op. F50 55		1	51	14	37
6 6 8 1 6 0 0	1 1 1 6	Percent F75		5	47	18	29

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13. Criterion Referenced Test (CRT) Results.

In the table below, enter the requested information about criterion referenced test results used to evaluate the effectiveness of programs in reading and mathematics; particularly for those of less than 60 hours duration. Use the Instructional Mastery codes appended to this form for those skills which the program attempted to improve. Please provide data for each test used and each level tested. Use additional sheets if necessary.

Function # 09-69609
College Bound Program, 1975-1976
MIR # 10

Component Code Grade 11 Mathematics	Instructional Mastery Code	SRA Publisher Objective and No.	Level	Pretest No. of Pupils		Posttest	
				Passing (1)	Failing (2)	No. of Pupils from Col. (2) Passing	No. of Pupils from Col. (2) Failing
66816000	11017	Addition W31		30	4	4	0
66816000	11018	Subtract. W37		26	8	8	0
66816000	11019	Multip. W44		26	8	8	0
66816000	11110	Division W55		16	18	15	3
66816000	11003	Fract. F27,29 33,37,39		4	30	19	11
66816000	11004	Decimals F41 48		5	29	14	15
66816000	11111	Prop.Op. F50 55		0	34	8	26
66816000	11116	Percent F75		2	32	5	27

3F

APPENDIX G

OFFICE OF EDUCATIONAL EVALUATION - DATA LOSS FORM

Rev. 4/75 (Attach to MIR, Item #30) Function #09-66609 College Bound Program

In this table enter all data loss information. Between MIR, Item #30 and this form, all participants in each activity must be accounted for. The component and activity codes used in completion of Item #30 should be used here so that the two tables match. See definitions below table for further instructions.

Component Code	Activity Code	(1) Group I.D.	(2) Test Used	(3) Total N	(4) Number Tested/ Analyzed	(5) Participants Not Tested/ Analyzed N	(5) %	(6) Reasons why students were not tested, or if tested, were not analyzed	Number/ Reason
60815	72 5	Gr.9	CAT70 Read	1942	1807	135	6.95	Truant; Moved	45/B 40/C
								Dropped; Incomplete Test Data	21/A 25/F
60816	72 5	Gr.10	CAT70 Read	2525	2403	122	4.83	Truant; Moved	32/B 33/C
								Dropped; Incomplete Test Data	28/A 29/F
60821	72 5	Gr.11	CTBS Read	2146	2121	25	1.16	Moved	12/C
								Transferred	13/D
60822	72 5	Gr.12	CTBS Read	1543	1506	37	2.39	Graduated	37/G
60915	72 5	Gr. 9	CAT70 Math	1368	1251	117	8.26	Dropped: Truant	11/A 21/B
								Moved; Incomplete Test Data	37/C 48/F

(1) Identify the participants by specific grade level (e.g., Grade 3, Grade 9). Where several grades are combined, enter the last two digits of the component code.
(2) Identify the test used and year of publication (MAT-70, SRAT-74, etc.).
(3) Number of participants in the activity.
(4) Number of participants included in the pre and posttest calculations found on Item#30.
(5) Number and percent of participants not tested and/or not analyzed on Item#30.
(6) Specify all reasons why students were not tested and/or analyzed. For each reason specified, provide a separate number count. If any further explanation is available, please attach to this form. If further space is needed to specify additional reasons, enter them on the back of this form.

MIR # 12

OFFICE OF EDUCATIONAL EVALUATION - DATA LOSS FORM
(attach to MIR, item #30) Function # 09-69609 College Bound Program

In this table enter all Data Loss information. Between MIR, item #30 and this form, all participants in each activity must be accounted for. The component and activity codes used in completion of item #30 should be used here so that the two tables match. See definitions below table for further instructions.

Component Code	Activity Code	(1) Group I.D.	(2) Test Used	(3) Total N	(4) Number Tested/ Analyzed	(5) Participants Not Tested/ Analyzed		(6) Reasons why students were not tested, or if tested, were not analyzed	
						N	%		Number/ Reason
6 0 9 1 6	7 2 5	Gr.10	CAT70 Math	2244	2178	66	2.94	Truant; Moved	7/B 12/C
								Dropped; Incomplete Test Data	18/A 29/F
6 0 9 1 6	7 2 5	Gr.11	CAT70 Math	1247	1150	97	7.77	Moved; Transferred	19/C 14/D
								Incomplete Test Data; Invalid	38/F 26/H
6 0 9 1 6	7 2 5	Gr.12	CAT70 Math	263	224	39	14.82	Graduated	37/G
								Incomplete Test Data	2/F
6 6 6 1 5	7 2 5	Gr. 9	Houghton Mifflin Read	110	97	13	11.81	Moved	7/C
								Transferred	6/D
6 6 6 1 6	7 2 5	Gr. 10	"	80	71	9	11.25	Moved	4/C
								Transferred	3/D

1) Identify the participants by specific grade level (e.g., grade 3, grade 9). Where several grades are combined, enter the last two digits of the component code.
2) Identify the test used and year of publication (MAT-70, SDAT-74, etc.).
3) Number of participants in the activity.
4) Number of participants included in the pre and posttest calculations found on item #30.
5) Number and percent of participants not tested and/or not analyzed on item #30.
6) Specify all reasons why students were not tested and/or analyzed. For each reason specified, provide a separate number count. If any further documentation is available, please attach to this form. If further space is needed to specify and explain data loss, attach additional pages to this form.

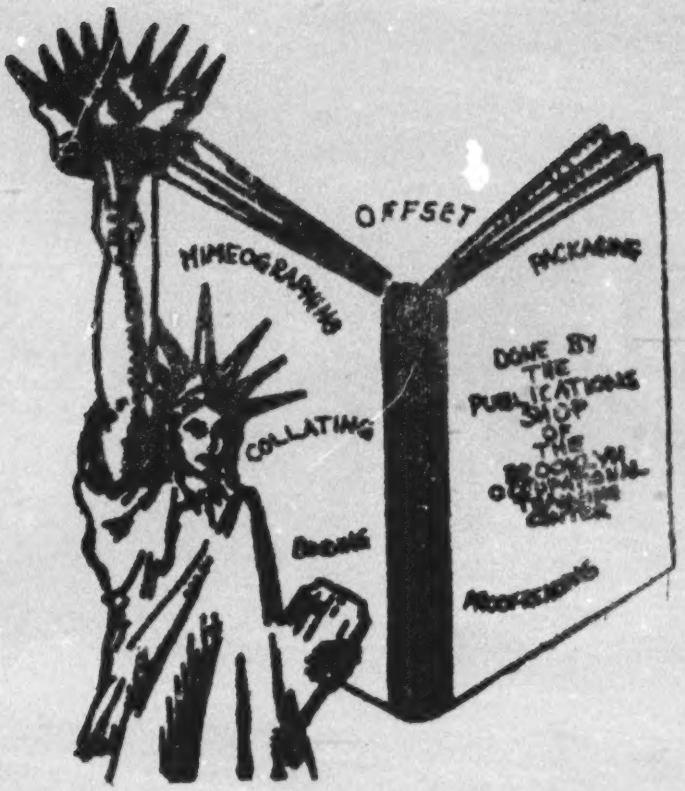
MIR # 13

OFFICE OF EDUCATIONAL EVALUATION - DATA LOSS FORM
(attach to MIR, item #30) Function # 09-69609 College Bound Program

In this table enter all Data Loss information. Between MIR, item #30 and this form, all participants in each activity must be accounted for. The component and activity codes used in completion of item #30 should be used here so that the two tables match. See definitions below table for further instructions.

Component Code	Activity Code	(1) Group I.D.	(2) Test Used	(3) Total N	(4) Number Tested/ Analyzed	(5) Participants Not Tested/ Analyzed		(6) Reasons why students were not tested, or if tested, were not analyzed	Number/ Reason
						N	%		
66161	72 5	Gr.11	Hough. Miff. Read	70	63	7	10.00	Moved	4/C
								Transferred	3/D
66815	72 5	Gr. 9	SRA Math	130	112	18	13.84	Moved	17/C
								Transferred	1/D
66816	72 5	Gr.10	SRA Math	80	52	28	35.0	Moved; Truant	13/C 8/B
								Transferred	7/D
66816	72 5	Gr.11	SRA Math	50	34	16	32.0	Moved; Truant	4/B 5/C
								Transferred	7/D

) Identify the participants by specific grade level (e.g., grade 3, grade 9). Where several grades are combined, enter the last two digits of the component code.
) Identify the test used and year of publication (MAT-70, SDAT-74, etc.).
Number of participants in the activity.
Number of participants included in the pre and posttest calculations found on item #30.
Number and percent of participants not tested and/or not analyzed on item #30.
Specify all reasons why students were not tested and/or analyzed. For each reason specified, provide a separate number count. If any further documentation is available, please attach to this form. If further space is needed to specify and explain data loss, attach additional pages to this form.


OFFSET
MIMEOGRAPHING
COLLATING
BINDING
PACKAGING
DONE BY
THE
PUBLICATIONS
SHOP
OF
THE